**Description**: This unit plan for radicals and trigonometry will incorporate an Interactive Notebook to be used as a summary and review.

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| --- | --- | --- |
| Day | Lesson Topic | Entry in Interactive Notebook |
| 1 | Review Pythagorean Theorem |  |
| 2 | Explore square roots on calculator |  |
| 3 | Define, compare rational, irrational numbers |  |
| 4 | Simplify radical expressions | Pythagorean Theorem |
| 5 | Practice simplifying radicals |  |
| 6 | Operations on radicals |  |
| 7 | Practice with operations on radicals |  |
| 8 | Pythagorean Theorem word problems | Simplifying, operations on radicals |
| 9 | Identify sides of a triangle with respect to a reference angle |  |
| 10 | Practice writing trig ratios |  |
| 11 | Find missing side using trig |  |
| 12 | Find missing angle using trig |  |
| 13 | Word problems with trig | Trigonometry |

**Essential Questions**:

* How do trigonometry and radicals expressions help us solve problems?

**Standards**:

* (NYS) Math A.N.2, A.N.3, A.A.42 – A.A.45
* (CCSS) RST 2, 4, 5, 7

**Title: Radical Expressions and Right Angle Trigonometry**

**Name**: **Reba Hekker** **Subject Area: Integrated Algebra**

**Date**: **7/1/11**  **Grade Level: 8th grade**

**Time Required: 42 minutes**

**Reading Skills**:

* Activating background knowledge
* Question the text
* Draw inferences
* Determining importance
* Synthesizing

**Thinking Skills**:

* Differentiating
* Explaining
* Analyzing

**Writing/Speaking Skills**:

* Taking notes
* Annotating notes

|  |  |
| --- | --- |
| Objectives:  *At the end of the lesson, students will be able to…* | Assessments:*I will know they can do this because they will…* |
| 1. Construct meaning from a unit summary | 1. Annotate notes in an Interactive Notebook |

## Pre-Reading

**Procedure before Reading**:

1. Lessons will be conducted according to the unit plan above.

**During Reading**

**Procedure while Reading**:

1. Periodically throughout a unit, at the end of a lesson, students will be instructed to record summary notes on a page. These notes will encapsulate the previous few days of content.

## Post-Reading

**Procedure after Reading:**

1. Students will then respond to each entry with their choice of prompt:
   1. This is similar to …
   2. I wonder why….
   3. What do they mean by….
   4. What I find confusing is…
   5. This relates to….
   6. I think I understand, but…

**Learning Styles: Visual**

**Materials**:

* Students’ own Interactive Notebooks

\*Please attach all student handouts